



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,706	02/02/2001	Charles R. Brewer	A7881	7288
7590                    03/24/2009 SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037-3213			EXAMINER	
			MOORE, IAN N	
			ART UNIT	PAPER NUMBER
			2416	
			MAIL DATE	DELIVERY MODE
			03/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/773,706	<b>Applicant(s)</b> BREWER, CHARLES R.
	<b>Examiner</b> IAN N. MOORE	<b>Art Unit</b> 2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

#### Status

- 1) Responsive to communication(s) filed on 17 January 2007.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,29 and 31-33 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,29 and 31-33 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 02 February 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 2/2/2001.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 29, 31-33 have been considered but are moot in view of the new ground(s) of rejection.

***Terminal Disclaimer***

2. The terminal disclaimer filed on now disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 11/7/2005 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Specification***

3. The disclosure is objected to because of the following informalities:

In the specification, page 18, line 20, "Fig. 9A and 9B are..." However, there are five (5) figures in the disclosure (i.e. 9A-9E). Thus, the brief descriptions for Fig. 9C to 9E are missing in the specification.

Appropriate correction is required.

***Claim Objections***

4. Claim 31 and 32 are objected to because of the following informalities:

**Claim 31** recites the clause with the optional language "**adapted to**" in line 2. In order to present the claim in a better form and to describe a positive or require steps/function to be performing (i.e. using the claim language that does not suggest or make optionally but required

steps to be performed), applicant is suggested to revise the claim language such that the steps/functions, which follows “**adapted to**”, to be performed are required (not optional).

Appropriate correction is required.

**Claim 32** is also objected for the same reason as set forth in claim 31.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Kou (US 5,790,535).

**Regarding claim 1**, Kou discloses a control communication method for a satellite communication system (see FIG. 1, 8, a method perform in the multiple access satellite communication system) having a central earth station (see FIG. 1, a central earth station C) and a plurality of remote earth stations (see FIG. 1, N-th remote stations T<sub>N</sub>) linked to the central earth station (see FIG. 1, connects/links to the central each station C) through at least one satellite in orbit above the earth (see FIG. 1, via satellite transponder S, which is above in the satellite orbit); see col. 4, line 28-45; see col. 13, line 1-60, the method comprising:

synchronizing a timing in the central earth station (see FIG. 5, frame timing signal generator 34, reception slot timing generator 37 synchronize the frame timing in the central

station C; see col. 8, line 50 to col. 9, line 3) and the plurality of remote earth stations (see FIG. 6, and remote stations using frame synchronization 46 and slot timing generation 47; see col. 10, line 1-15; see col. 11, line 1-25) such that a predetermined control time period having a plurality of distinct sequential time slots (see FIG. 5,6, a predetermined control slot timing with series of time slots (see FIG. 2-3); see col. 10, line 1-15; see col. 4, line 45 to col. 6, line 11) is synchronized among the central earth station and the remote earth stations (see FIG. 1-3, is synchronized between the central C and remotes stations; see col. 4, line 45 to col. 6, line 11; see col. 8, line 50 to col. 9, line 3);

initiating from a respective remote earth station (see FIG.1, 3, 9, starting/initiation a request REQ from a remote station), and completing, a transmission of control information (see FIG. 3, 9, transmitting a request/control information in random access) through the satellite to the central earth station (see FIG. 1, 9, via satellite to the central station C) only during a respective one or more of the time slots assigned to the respective remote earth station (see FIG. 1,9, only during random access time slots assigned to remote station); see col. 13, line 60 to col. 14, line 20, 45-65; also see FIG. 2, see col. 4, line 45 to col. 5, line 20);

receiving the transmission at the central earth station (see FIG. 1, 2, 9, receiving request information at the central station C; see col. 13, line 60 to col. 14, line 20, 45-65; also see FIG. 2, see col. 4, line 45 to col. 5, line 20); and

sending from the central earth station (see FIG. 9, transmitting form the central station C; see col. 6, line 12-35; see col. 13, line 60 to col. 14, line 33), in response to the received transmission (see FIG. 9, after/in-response to received request REQ; see col. 13, line 60 to col. 14, line 33), a separate transmission of data (see FIG. 1, 4, 9, a separate/different data; see col. 6,

line 12-35) through the satellite to the remote earth station (see FIG. 1, 4, 9, via satellite to the remote station; see col. 13, line 60 to col. 14, line 33).

**Regarding claim 33,** Kou discloses a control communication method for a satellite communication system (see FIG. 1, 8, a method perform in the multiple access satellite communication system) having a central earth station (see FIG. 1, a central earth station C) and a plurality of remote earth stations (see FIG. 1, N-th remote stations T<sub>N</sub>) linked to the central earth station (see FIG. 1, connects/links to the central each station C) through at least one satellite in orbit above the earth (see FIG. 1, via satellite transponder S, which is above in the satellite orbit); see col. 4, line 28-45; see col. 13, line 1-60, the method comprising:

synchronizing a timing in the central earth station (see FIG. 5, frame timing signal generator 34, reception slot timing generator 37 synchronize the frame timing in the central station C; see col. 8, line 50 to col. 9, line 3) and the plurality of remote earth stations (see FIG. 6, and remote stations using frame synchronization 46 and slot timing generation 47; see col. 10, line 1-15; see col. 11, line 1-25) such that a predetermined control time period having a plurality of distinct sequential time slots (see FIG. 5,6, a predetermined control slot timing with series of time slots (see FIG. 2-3); see col. 10, line 1-15; see col. 4, line 45 to col. 6, line 11) is synchronized among the central earth station and the remote earth stations (see FIG. 1-3, is synchronized between the central C and remotes stations; see col. 4, line 45 to col. 6, line 11; see col. 8, line 50 to col. 9, line 3);

initiating from a respective remote earth station (see FIG.1, 3, 9, starting/initiation a request REQ from a remote station), and completing, a transmission of control information (see FIG. 3, 9, transmitting a request/control information in random access) through the satellite to

the central earth station via a first transmission path (see FIG. 1, 9, via satellite to the central station C via a transmitting link/path (e.g. random access path)) only via a respective one or more of the time slots assigned to the respective remote earth station (see FIG. 1,9, in the random access time slots assigned to remote station); see col. 13, line 60 to col. 14, line 20, 45-65; also see FIG. 2, see col. 4, line 45 to col. 5, line 20);

receiving the control information transmitted via the first transmission path at the central earth station (see FIG. 1, 2, 9, receiving request information transmitted via a transmitting link/path (e.g. random access path) at the central station C; see col. 13, line 60 to col. 14, line 20, 45-65; also see FIG. 2, see col. 4, line 45 to col. 5, line 20); and

sending from the central earth station (see FIG. 9, transmitting form the central station C; see col. 6, line 12-35; see col. 13, line 60 to col. 14, line 33), in response to the received transmission (see FIG. 9, after/in-response to received request REQ; see col. 13, line 60 to col. 14, line 33), a separate transmission of data (see FIG. 1, 4, 9, a separate/different data; see col. 6, line 12-35) through the satellite to the remote earth station (see FIG. 1, 4, 9, via satellite to the remote station; see col. 13, line 60 to col. 14, line 33) on a second transmission path (see FIG. 1, 9, on the return path from central station to remote station) separate from said first communication path (see FIG. 1, 9, which is different from transmitted link/path (e.g. random access path); see col. 13, line 60 to col. 14, line 33).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2416

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kou in view of Sachdev (US 5,966,442).

**Regarding claim 29,** Kou discloses a satellite communication system providing real-time acquisition and transmission of high bandwidth data (see FIG. 1, the multiple access satellite communication system transmitting user data; see col. 4, line 28-45; see col. 13, line 1-60), comprising:

an information resource providing transmission (see FIG. 1, hub station which provides transmission that couples to a central earth station C; see col. 4, line 40-45);

a satellite (see FIG. 1, satellite transponder S; see col. 4, line 28-45; see col. 13, line 1-60);

a central earth station (see FIG. 1, a central earth station C; see col. 4, line 28-45; see col. 13, line 1-60);

a remote earth station (see FIG. 1, N-th remote stations  $T_N$ ) in communication with the central earth station (see FIG. 1, connects/links to the central each station C) through the satellite (see FIG. 1, via satellite transponder S; see col. 4, line 28-45; see col. 13, line 1-60) to transmit control information (see FIG. 3, 9, transmitting a request/control information in random access) on a first transmission path through the satellite (see FIG. 1, 9, via satellite to the central station C via a transmitting link/path (e.g. random access path)) only during a predetermined periodic time slot assigned to the remote earth station (see FIG. 1,9, in the random access time slots

assigned to remote station); see col. 13, line 60 to col. 14, line 20, 45-65; also see FIG. 2, see col. 4, line 45 to col. 5, line 20; and

wherein the central earth station is connected to the information resource to receive the transmission (see FIG. 1, the central station C is connected to the hub station to receive data transmission) and to communicate the transmission (see FIG. 9, transmitting from the central station C; see col. 6, line 12-35; see col. 13, line 60 to col. 14, line 33) on a second transmission path through the satellite (see FIG. 1, 9, on the return path from central station to remote station via satellite) to the remote earth station in response to the control information transmitted by the remote earth station (see FIG. 9, to the remote stations after/in-response to received request REQ/control information transmitted by the remote station; see col. 13, line 60 to col. 14, line 33).

Kou does not explicitly disclose “a high bandwidth”.

However, Sachdev teaches an information resource (see FIG. 3, broadcast sources 38, 40, 42, 44-48) providing a high bandwidth transmission (see col. 6, line 20-40; transmitting at high bandwidth);

a satellite (see FIG. 3, satellite 10);

a central earth station (see FIG. 3, hub station 50);

wherein the central earth station is connected to the information resource (see FIG. 3, hub station 50 is connected to broadcast sources 38, 40, 42, 44-48) to receive the high bandwidth transmission (see FIG. 3, to receive high bandwidth broadcast sources) on a transmission path (see FIG. 3, on the transmit path) through the satellite to the remote station (see FIG. 3, via satellite 10 the remote terminal); see col. 5, line 1-15; see col. 6, line 20-40.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide “high bandwidth” as taught by Sachdev in the system of Kou, so that it would provide real time audio and video without suffering range limitation; see Sachdev col. 2, line 25-40.

**Regarding claim 31,** Kou discloses wherein the remote earth station is adapted to communicate information to the central earth station on a transmission path (see FIG. 1, 9, on the return path from central station to remote station) different from the first transmission path (see FIG. 1, 9, which is different from transmitted link/path (e.g. random access path); see col. 13, line 60 to col. 14, line 33).

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kou and Sachdev as applied to claim 29 above, and further in view of Wesel (US 2003/0207684).

**Regarding claim 32,** Kou discloses wherein the central earth station is adapted to send via the network information response to event information received by the central earth station from the remote earth station (see FIG. 1, 9, the central station C send the network information to the hub station in access network in response to slot/synchronization/assignment information received by the central station C by the remote earth station; see col. 6, line 12-35; see col. 13, line 60 to col. 14, line 33). Sachdev also discloses the central earth station is adapted to send via network information response to real-time event information received by the central earth station form the remote station (see col. 4, line 1 to col. 6, line 40).

Neither Kou nor Sachdev explicitly discloses “the Internet information”.

However, Wesel discloses the central earth station (see FIG. 1, System access node 22) is adapted to send via the Internet information (see FIG. 1, transmitting via Internet messages/packets via Internet 23) response to real-time event information received by the central earth station from the remote station (see FIG. 1, when real-time event messages/data is received at the access node 22 from remote notes 18); see page 2, paragraph 28-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Internet information” as taught by Wesel, in the combined system of Kou and Sachdev, so that it would reduce the perceived time delay and maintain communication; see Wesel page 1, paragraph 9-10.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN N. MOORE whose telephone number is (571)272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2416

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ian N. Moore  
Primary Examiner  
Art Unit 2416

/Ian N. Moore/  
Primary Examiner, Art Unit 2416